



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,860	05/07/2002	Dittmar Klett	1854	6213

7590 04/21/2003  
Striker Striker & Stenby  
103 East Neck Road  
Huntington, NY 11743

EXAMINER

DINH, TRINH VO

ART UNIT	PAPER NUMBER
----------	--------------

2821

DATE MAILED: 04/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/019,860

Applicant(s)

KLETT ET AL.

Examiner

Trinh Vo Dinh

Art Unit

2821

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 May 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. Therefore, the abstract must be rewritten in a single paragraph within the range of 50 to 150 words.

### *Drawings*

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "combustion chamber" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 3. "the combustion chamber" has no antecedent basis.

In claim 8, line 3, what is meant by "it"?

In claim 8, line 3. "the combustion chamber" has no antecedent basis.

In claim 8, line 10, what is meant by "its"?

In claim 8, line 7. "the combustion chamber end" has no antecedent basis.

In claim 8, is "section" recited on line 10, the same as "an outer section" recited on line 8? If it is, "section" must be changed to --said outer section--.

In claim 8, line 10, what is meant by "that"?

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Kato et al (USP 5,877,584)

With respect to claim 1, Kato discloses, in Fig. 2, a spark plug (col. 1, line 28) having a middle electrode base body (3) with an end face (Fig. 2) oriented toward a combustion chamber (Fig. 2, and col. 2, line 10+), to which end face a precious metal platelet (5, 33 col. 4, lines 45+) is attached, in which an end section of the electrode base body oriented toward the combustion chamber is embodied in the shape of a truncated cone (31, 32 col. 4, lines 50+), wherein the platelet is embodied in the shape of a truncated cone (33, col. 4, lines 53+) and the diameter of the end face of the electrode base body oriented toward the chamber (Fig. 2).

With respect to claim 2, Kato discloses the opening angle of the end section of the electrode base se body oriented toward the chamber is less than or equal to 180 degree and the opening angle of the metal platelet is less than or equal to 90 degrees and the opening angle of each opens in the direction oriented away from the chamber (Fig. 2).

7. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by von Stutterheim et al (USP 4,122,366).

With respect to claim 1, Stutterheim discloses, in Figs. 1-2, a spark plug (col. 1, line 4) having a middle electrode base body (col. 4, lines 54+) with an end face (Fig. 2) oriented toward a combustion chamber (Figs. 3-4) to which end face a precious metal platelet (3, 4, col. 4, lines 54) is attached, in which an end section of the electrode base body oriented toward the combustion chamber is embodied in the shape of a truncated cone (the taper portion between 1 and 2, col. 4, lines 54-56), wherein the platelet is embodied in the shape of a truncated cone (3, col. 4, lines 57-58) and the diameter of the end face of the electrode base body oriented toward the chamber (Figs. 1-2).

With respect to claim 2, Stutterheim discloses the opening angle of the end section of the electrode base se body oriented toward the chamber is less than or equal to 180 degree and the opening angle of the metal platelet is less than or equal to 90 degrees and the opening angle of each opens in the direction oriented away from the chamber (Figs. 1-2).

***Allowable Subject Matter***

8. Claims 3-7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Art Unit: 2821

9. Claims 8-11 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

10. The cited art of record fails to teach the end section of the electrode having a second truncated cone-shaped region where the diameter of the end face of the first truncated cone-shaped region oriented away from the chamber corresponds to the diameter of the end face of the second truncated cone-shaped region oriented toward the chamber.

*Inquiry*

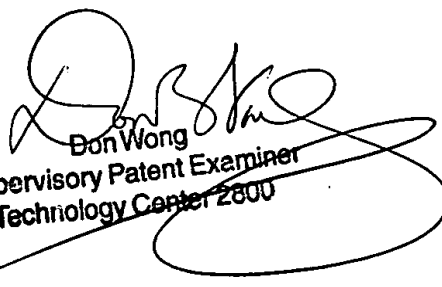
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trinh Vo Dinh whose telephone number is (703) 305-4525. The examiner can normally be reached on Monday-Friday from 8:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong, can be reached on (703) 308-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Art unit 2821

Trinh Vo Dinh  
April 14, 2003

  
Don Wong  
Supervisory Patent Examiner  
Technology Center 2800